

ITEM 08209.2012 M - FIBER LOGS, TYPE II - 300 mm

ITEM 08209.2020 M - FIBER LOGS, TYPE I - 500 mm

DESCRIPTION:

This work shall consist of furnishing, installing, maintaining, and removing fiber logs for erosion and sedimentation control at the locations shown on the plans or where directed by the Engineer.

MATERIALS:

Fiber logs shall be made of wood fibers encased in a tube of polyester netting and shall be free of weed seed. The fiber shall be curled and interlocked to form an organic filtration matrix, with barbed edges which are evenly distributed. A minimum of 80 percent of the fibers shall be 150mm or greater in length. Netting at each end of the log shall be secured with metal clips or knotted ends to assure fiber containment. The fiber log shall have the following material characteristics:

	<u>Type I</u>	<u>Type II</u>
Nominal diameter (+/- 10%)	500mm	300mm
Length	3m	3m
Weight (+/- 10%)	13.6kg	9.07kg
Netting break load	7.3kg	7.3kg
Net opening (triangular shaped)	25mm	25mm

Anchors shall be hardwood stakes, 25mm diameter and approximately 1m in length.

CONSTRUCTION DETAILS:

Fiber logs of the type indicated on the contract drawings shall be installed where shown on the plans, as shown on the details, or as directed by the Engineer.

When fiber logs are installed in a swale or channel bottom at intervals shown on the plans and details. Closer spacings may be used based on site specific conditions as detailed in the contract drawings or as directed by the Engineer. Fiber logs shall be placed perpendicular to the direction of flow and shall extend up the channel side slopes as indicated on the plans and details.

When fiber logs are installed on a slope they shall be placed parallel to the contours and at the intervals shown on the plans, details, or as directed by the Engineer. When more than one length of fiber log is required, the logs shall be butted tightly end to end and tied together with nylon rope or fasteners to create a continuous length. End to end tying may be completed before or after placement to facilitate handling.

Stakes shall be located every 600mm to secure the logs. Each stake shall be intertwined with the netting on the downstream or downslope side of the log and driven 300mm into the ground. Fiber logs shall be trenched into the soil as indicated on the plans and details to provide intimate contact between the bottom of the log and the soil. Soil shall be tamped against the upstream or up slope side to assure that stormwater is forced to flow through the log, rather than under it.

Fiber logs shall be inspected by the contractor after each storm event, or at the end of each week. At the time of the inspection the contractor shall:

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- Replace any broken, or deformed logs.
- Remove any sediment deposits that exceed one-half the height of the log. All sediment deposits shall be considered unsuitable material and disposed of in accordance with § 203-3.08 Disposal of Surplus Excavated Material.
- Reinstall misaligned fiber logs.

METHOD OF MEASUREMENT:

This work will be measured as the number of linear meters of fiber logs installed in accordance the contract documents and as directed by the Engineer.

BASIS OF PAYMENT:

The unit price bid per linear meter shall include the cost of furnishing all labor, material, and equipment necessary to satisfactorily trench, install, maintain, and remove the fiber logs including stakes, and back filling of trenches, and disposal of surplus material. Any fiber logs ordered to be replaced due to normal deterioration shall be paid for under this item. The contractor will be paid 50% upon the installation of the fiber logs and the remaining 50% upon the satisfactory removal of the logs when no longer needed as indicated in the contract documents, or as directed by the Engineer. Prior to removing the fiber logs the area must be satisfactorily stabilized with vegetation or another erosion control measure as directed by the Engineer. Satisfactory removal includes backfilling and seeding of any trenching and disposal of any surplus material if necessary.